

Title (en)

MICROELECTROMECHANICAL SYSTEM (MEMS) BOND RELEASE STRUCTURE AND METHOD OF WAFER TRANSFER FOR THREE-DIMENSIONAL INTEGRATED CIRCUIT (3D IC) INTEGRATION

Title (de)

BINDUNGSFREIGABESTRUKTUR EINES MIKROELEKTROMECHANISCHEN SYSTEMS UND VERFAHREN FÜR WAFERTRANSFER ZUR INTEGRATION EINER DREIDIMENSIONALEN INTEGRIERTEN SCHALTUNG

Title (fr)

STRUCTURE DE LIBÉRATION DE LIAISON DE MICROSYSTÈME ÉLECTROMÉCANIQUE (MEMS) ET PROCÉDÉ DE TRANSFERT DE TRANCHE DE TRANCHE POUR INTÉGRATION DE CIRCUIT INTÉGRÉ TRIDIMENSIONNEL (CI 3D)

Publication

**EP 3198634 A1 20170802 (EN)**

Application

**EP 15767645 A 20150908**

Priority

- US 201414498965 A 20140926
- US 2015048930 W 20150908

Abstract (en)

[origin: WO2016048649A1] A microelectromechanical system (MEMS) bond release structure is provided for manufacturing of three-dimensional integrated circuit (3D IC) devices with two or more tiers. The MEMS bond release structure includes a MEMS sacrificial release layer which may have a pillar or post structure, or alternatively, a continuous sacrificial layer for bonding and release.

IPC 8 full level

**H01L 21/822** (2006.01); **H01L 21/683** (2006.01); **H01L 27/06** (2006.01)

CPC (source: CN EP KR US)

**H01L 21/02164** (2013.01 - CN KR US); **H01L 21/265** (2013.01 - CN KR US); **H01L 21/6835** (2013.01 - CN EP KR US);  
**H01L 21/76254** (2013.01 - CN KR US); **H01L 21/76802** (2013.01 - CN KR US); **H01L 21/76877** (2013.01 - CN KR US);  
**H01L 21/8221** (2013.01 - CN EP KR US); **H01L 23/5226** (2013.01 - CN KR US); **H01L 23/528** (2013.01 - CN KR US);  
**H01L 25/0657** (2013.01 - CN KR US); **H01L 25/50** (2013.01 - CN KR US); **H01L 27/0688** (2013.01 - CN EP US);  
**H01L 2221/68318** (2013.01 - CN EP US); **H01L 2221/68363** (2013.01 - CN EP US); **H01L 2221/68381** (2013.01 - CN EP US);  
**H01L 2225/06541** (2013.01 - CN US); **H01L 2924/00** (2013.01 - CN); **H01L 2924/0002** (2013.01 - CN EP US)

Citation (search report)

See references of WO 2016048649A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2016048649 A1 20160331**; BR 112017006167 A2 20180410; CN 106688077 A 20170517; EP 3198634 A1 20170802;  
HK 1232339 A1 20180105; JP 2017536248 A 20171207; KR 20170066354 A 20170614; SG 11201700918R A 20170427;  
TW 201633366 A 20160916; TW I585820 B 20170601; US 2016093591 A1 20160331; US 9922956 B2 20180320

DOCDB simple family (application)

**US 2015048930 W 20150908**; BR 112017006167 A 20150908; CN 201580048185 A 20150908; EP 15767645 A 20150908;  
HK 17105914 A 20170614; JP 2017514278 A 20150908; KR 20177007903 A 20150908; SG 11201700918R A 20150908;  
TW 104131176 A 20150921; US 201414498965 A 20140926